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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/776,789

02/11/2004

Kenneth Bednasz

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EXAMINER

PAN, YUWEN

ART UNIT

PAPER NUMBER

2618

MAIL DATE

DELIVERY MODE

01/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/776,789	BEDNASZ ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Yuwen Pan	2618	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 11 February 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4-7, 9-18, 20-23, 25-41 is/are rejected.
- 7) ☒ Claim(s) 3, 8, 19 and 24 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                            | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 17, 18, 28, 29, 30, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Lee (US005825331A).

Per claim 1, Lee discloses a method of calculating the radiated sensitivity of a mobile terminal (see abstract) comprising: determining a reference sensitivity of the mobile terminal positioned in reference orientation (see figure 5, item S204, and S205, column 6 and lines 55-67; estimating an antenna gain of a mobile terminal antenna when the mobile terminal antenna when the mobile terminal is positioned in a test orientation (see column 4 and lines 8-26); and adjusting the reference sensitivity based on the estimated antenna gain to calculate the sensitivity of the mobile terminal positioned in the test orientation (see figure 5, and item S206, figure 13 and column 7 and column 7 and 8).

Same arguments apply, *mutatis mutandis*, to claims 17 and 29 (see figure 3 and 5 for detail components).

Per claim 2, Lee further teaches applying a known power level to the mobile terminal antenna when the mobile terminal is positioned in the test orientation (see column 7 and lines 1-12); and comparing the known antenna power level to a measured power level reported by the

mobile terminal to estimate the antenna gain (see figure 5 and item S207 and S210, column 9 and lines 20-50).

Same arguments apply, *mutatis mutandis*, to claims 18, 30.

Per claim 28, Lee further teaches that program instructions to estimate a second antenna gain when the mobile terminal is positioned in a second test orientation; and program instructions to adjust the reference sensitivity based on the second estimated antenna gain to calculate a second sensitivity of the mobile terminal positioned in the second test orientation.(see figure 4, 5, and 9B).

Per claim 40, Lee further teaches that the second text mode comprises a data collection mode (see column 7 and lines 14-45).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 3, 4, 4-7, 9-16, 20-23, 25-27, 31-39, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lee (US005825331A).in view of Kildal (US007286961B2).

Per claim 4, Lee does not teach determining a correction factor for each of a plurality of measured power levels reported by the mobile terminal. Kildal teaches determining an error term

for each of a plurality of measured power levels (see column 7 and lines 1-28). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teaching of Kildal with Lee to optimize the measurement of receiving power.

Same arguments apply, *mutatis mutandis*, to claim 20, 31.

Per claim 5, Kildal further teaches that applying a plurality of known power levels to an input of a receiver of the mobile terminal; and comparing each of the known power levels to a corresponding measured power level reported by the mobile terminal to determine the correction factor for each measured power level (see column 7 and lines 15-28).

Same arguments apply, *mutatis mutandis*, to claims 21, and 32.

Per claim 6, Kildal further teaches that applying the corresponding correction factor to the reference sensitivity to determine a corrected reference sensitivity (see column 7 and lines 29-column 8 and lines 8).

Same arguments apply, *mutatis mutandis*, to claim 22.

Per claim 7, Kildal further teaches that The method of claim 4 wherein estimating the antenna gain of the mobile terminal antenna comprises: applying a known power level to the mobile terminal antenna when the mobile terminal is positioned in the test orientation; applying the corresponding correction factor to a measured power level reported by the mobile terminal to determine a corrected power level; and comparing the known antenna power level to

the corrected power level to determine a corrected estimate of the antenna gain (see column 8 and lines 8-18).

Same arguments apply, *mutatis mutandis*, to claim 23, 34.

Per claim 9, Kildal further teaches that determining the correction factors for one or more frequency channels (see column 6 and lines 59-67).

Same arguments apply, *mutatis mutandis*, to claim 25.

Per claim 10, Lee further teaches that applying a known communication signal at one or more known antenna power levels to the mobile terminal antenna when the mobile terminal is positioned in the reference orientation; receiving a looped-back version of each communication signal and corresponding measured power level; calculating a signal quality of each looped-back version of the communication signal; comparing each of the calculated signal qualities to a predefined signal quality; and identifying the reference sensitivity as the measured power level that generally corresponds to the predefined signal quality (see figure 5 and corresponding paragraphs).

Same arguments apply, *mutatis mutandis*, to claims 26, and 37.

Per claim 11 and 12, Kildal further teaches that the signal quality is a bit error rate or a frame error rate (see abstract).

Same arguments apply, *mutatis mutandis*, to claims 38 and 39.

Per claim 13, Lee further teaches that adjusting the reference sensitivity based on the estimated antenna gain to calculate the sensitivity of the mobile terminal positioned in the test orientation for each combination of one or more frequency channels with one or more mobile terminal configurations (see figure 4 and corresponding paragraphs).

Per claim 14, Lee further teaches that the one or more frequency channels comprise a high, a medium, and a low frequency in a frequency operating band of the mobile terminal (see figure 10B).

Per claim 15, Kildal further teaches that the one or more mobile terminal configurations comprise a free-space configuration, a left-ear configuration, and a right-ear configuration (see figures 3-7).

Same arguments apply, *mutatis mutandis*, to claim 27.

Per claim 33, it is inherent that a memory is utilized for error data collection and calculation.

Per claim 35, Kildal further teaches that at least one of the first and third test mode comprises a characterization mode (see column 7 and lines 1-28).

Per claim 36, Lee further teaches that the second interface comprises a coaxial cable (see figure 3 and item 12).

Per claim 41, Kildal further teaches that the first interface comprises a test antenna (see figure 6 and item 9)

***Allowable Subject Matter***

5. Claims 3, 8, 19, 24 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 for detail.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yuwen Pan whose telephone number is 571-272-7855. The examiner can normally be reached on 8-5 M-F.

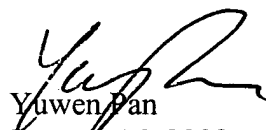
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anderson D. Matthew can be reached on 571-272-4177. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Yuwen Pan  
January 16, 2008